

Db	187	NPDSFTEARSNMINDQGLMRKALKELIDENLGSKNSKTPSGRLNVFESH- ----	242
Qy	258	YNKIQYUNLSSGLVPTPEPPPGDPMPHPNPQOTTSVLIRKAYLAGDYSKLLGATLTQDGD	317
Db	243	--KFOUNLSEVYDPPPRKGE-- -PPATEKTSVIRIKYAEAGD--SKLLEGATLISQI	297
Qy	318	NVNSFOARVSSNDIGRIEISDGYTLTFLNSPAGYSIAEPITPFKEAGKYVTI--IDGK	376
Db	298	EGSGFOEKDQNSNLGTVLPLNCTIYTLTSSPDGKIKNEPIKFRYENKKVFIYKODS	357
Qy	377	QIENPKFEIPEYSVEAYNDPEEFSVLT--TONYAKFEYAKNKGSSQVYCFNADLKSP	435
Db	358	QVENPKFEVPEYSEAYNDFMEDEVSGFTPGKFEYATNKKDSQVYCFNADLHSP	417
Qy	436	DSDECGTMTDPDTT--GEVYVTHIAGDLEKRYVKKPRDTPDPLFKHIKVIKGYREK	494
Db	418	DSYSGELINDISTMKEVKTHIAGSDLEKRYALRPDTPDEPLFKHIKVIKGYREK	477
Qy	495	QAIYSGLTETLRRAAQOLAIFYFTDSAELEDKKL-----DYGAGFGDMNSTLAVKILY	550
Db	478	DS--YNGTLETQFPAANQOLAIFYFTDSADLKLTKTYNKGSGHYFESMDKTLAVKELI	535
Qy	551	EYADDSNPQTLDTDFTPNNKTKQS.LIGQMPBEDLVDIRMEDKK--EYIPYTHNLTLR	609
Db	536	TYAONGSAPQTLTNIDFVPPNNSKQSLIGTECHPDLDVDIRMEDKKOEVIPTSHSLTVK	595
Qy	610	KTVYGLAGDRDKDFEIELEKNNKQOELLSTQVTKDNTKEFKGKATYINKGESLTLG	669
Db	596	KTVYGLGDKTKGQGFLELKDKTGQIVYTLTKTNNDLVAKQKGYSFNLKHDITRIEG	655
Qy	670	LPBESYSLVKEWDESGYKRVKNSOEVANATVSKTIGTSDETLAFENKKEPVETGYDKI	729
Db	656	LPQTSYSLTEKEAEKDKYIVYNDKVSQEOASVGKIDTEDKKTVPENRKDLVPTGTLTGG	715
Qy	730	NGYLLATVINGISIGIW 746	
Db	716	ATYMLLTVPLGLLW 732	
RESULT	2		
ID	054953	PRELIMINARY;	PRT: 659 AA.
AC	054953;		
DT	01-NOV-1996 (TEMBIrel. 01, Created)		
DT	01-NOV-1996 (TEMBIrel. 01, Last sequence update)		
DE	01-MAY-2000 (TEMBIrel. 13, Last annotation update)		
DT	PROTEIN F.		
GN	PTF.		
OS	Streptococcus pyogenes.		
OC	Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;		
OC	Streptococcus.		
OX	NCBI_TaxID=1314;		
OX	[1]		
RM	SEQUENCE FROM N.A.		
RP	SMRAIN-JRS75;		
RC	MEDLINE=95020565; PubMed=7934855;		
RX	Sela S., Avit A., Burshten I., Tovl A., Caparon M.G., Hanski E.;		
RA	"Protein F: an adhesin of Streptococcus pyogenes binds fibronectin vi-		
RT	two distinct domains."		
RL	MOL. Microbiol. 10:1049-1055(1993).		
DR	EMBL: L10919; AAA26964.1; -		
DR	INTERPRO: IPR001899; -		
DR	PROSITE: PS00343; GRAM_POS_ANCHORING; UNKNOWN_1.		
DQ	SEQUENCE 659 AA; 73628 MW; DQCB9JDI59726BD CRC64;		

```

Query Match      16.1%  Score 633.5: DB 2: Length 659:
Best Local Similarity 26.1%  Pred. No. 1,4e-29:
Matches 203: Conservative 128: Mismatches 237: Indels 211: Gaps 30:

20 SKNSKRFVTLLVGFALMTFALVTSNMGAKTVFGLVESSTPNAINPDSSEKRWYGESTYV 79
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
24 TKRRKRFVTLVGFEMLIACAGALGFGQVAVAADEKTVPSHSNP - NPEFMYGSDAG 81
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

```

QY	80	RGHYYQOFARV	AHLLRVNL	EGSSREYO	YCFNLK	APFLG	SSYKKYK	KHDD	ISTFED	139																																						
Db	82	KEYFGYIMWTRY	HOLLRNLG	SSRYOY	CENJDS	NYTSQ	KNSFK	FKNF	KIEG	KSFD	141																																					
QY	140	YAMSPRITGDEL	LNOKLAVMY	NGHPQAN	GMIEG	LEBLMA	IRVTOE	AWYYS	SDNA	PISNP	199																																					
Db	142	YAHHTKLGKEL	EQRLLSLT	LYNAYP	NDAN	GMYKLEH	LNALITVQ	YAWMYH	SDNSQOF		200																																					
QY	200	DESKRESSE	NLVSTQS	LSMRKAL	KOLIDP	NLNATK	RPQV	PPDFOL	STSE	EDKGGKN	259																																					
Db	201	ETLMESEKKEK	ISRSOY	TLTMR	ELKKLIDP	NLEATV	ANNIPS	GSYRLIN	IESE		254																																					
QY	260	KGYONLSG	GLVPRK	PPDP	PPMPQ	POPTSV	LIRK	YAI	IGDYS	KLEAFL	315																																					
Db	255	EAYONLSAE	VYVPPDP	KPGF							298																																					
QY	316	GDVANSFO	ARVFS	SSNDIG	ERIEL	SDGYTTL	TELS	NPAG	YSIAE	ITRK	YENAGVYTTIDG	375																																				
Db	299	DONLEPTLP	VPYMD									337																																				
QY	376	KQIENPNKE	IEVE									434																																				
Db	338	QEV										364																																				
QY	435	PDSE	DGKATM	PDFTT	GBVY							433																																				
Db	365	LAGE										399																																				
QY	494	GOALEY	SGLFT	QORAA	YQOLA	IYFT	QSA	ELDK	KL	DYNG		536																																				
Db	400	GNNVET	EDTK	REP	VL	MGQ						453																																				
QY	537	DMND	STLAV	KI	VE	YADS						569																																				
Db	454	GQSES										486																																				
QY	590	IIRBED	KKEV	IPV	HN	ILK	RTV	GL	AGDR	KD	HFEL	ELKNNKO	ELL	SOYV	KTD	644																																
Db	487	VL	MG	QSES	VEFT												536																															
QY	645	KTNLE	FKD	KAT	IN	LK	HGES	IT	LOG	LEG	YS	LVK	ET	DS	SGY	KV	KNV	SOE	AVAN	ATV	SKTG	704																										
Db	537	KDTQ	GM	SG	QTT	PO	IE	TE	D	TK	EP	EV	L	MG	QSES	VEFT							587																									
QY	705	IT	SET																				743																									
Db	588	T	VED	TR	K	IV	F	H	D	N	N	E	P	K	V	E	N	R	E	R	P	K	T	N	P	I	L	R	A	T	G	D	I	E	N	V	A	L	F	I	L	I	S	T	V	S	T	646

RESULT	3			
033709				
ID	033709	PRELIMINARY;	PTT;	665 AA.
AC	033709			
DT	01-JAN-1998 (TREMBLrel. 05, Created)			
DT	01-JAN-1998 (TREMBLrel. 05, Last sequence update)			
DT	01-MAY-2000 (TREMBLrel. 13, Last annotation update)			
DE	FIBRONECTIN/FIBRINOGEN BINDING PROTEIN F.			
GN	PTF15.			
OS	Streptococcus pyogenes.			
OC	Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;			
OC	Streptococcus.			
OX	NCBI_TaxID=1314;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RC	STRAIN-EF1949;			
RC	MEDLINE=98129085; PubMed=9467904;			
RA	Katerov V., Andreev A., Schalen C., Todorian A.A.;			
RT	"protein F, a fibronectin-binding protein of Streptococcus pyogenes.			
RT	also binds human fibrinogen: Isolation of the protein and mapping of			
RT	the binding region."			
RL	Microbiology 144:119-126(1998).			
RR	EMBL; AF009908; AAC38155.1.			

QY	193	NAPLNSDESKRSEENLVSSTQSLSRQALQIDLPNATKMPKQVPPDQSLFESE	252
QY	193		
Db	189	NSSLFNDNFETTTAKOLNITKPEQLSLMRALKLIDPKLSESLKVPSTFRINTESO	248
QY	253	DKGDKYKGYONLISGLVFTKPTPGDPPMPNOQPTSVLIRKVAIGDYSKLEGATL	312
Db	249	D-----KLXYONLISLAEFVEENPKPKGE--TPREGPKTPEL-----DGTPIPEGP--	290
QY	313	QLTDNANNSQARFSSNDIGERLELSDGTYYTLTFLNSPAGYSTAEPIITKVAEGKYTI	372
Db	291	QRPNSLEPTLPV-----MLDG--QEVPEVSESLPALPPLMBELDQGEVPEV	338
QY	373	-----IDGKOI--ENPNKE--IYEVSYEAYNDEEFESVLTQNYAKFYA	414
Db	339	PSESLPALPPLMBELDQGEVPEKPSVDLPIDBR-----	373
QY	415	KNNKSSQVYVCFENADLKSPDSESDGKMTPTDFTGEVRY--THIAGRDLFKYTVKPRDT	473
Db	374	-----YEFNNKKQOSPACGE-----SELEYITEVYGNQ-----QNFVDI	407
QY	474	DPDFELKHKKVIEKGYREKGOALEYSGLETQOLARATOLAIYFTDPAELDKLDYH	533
Db	408	DK-----KLPNETGF--SCNNMETEDTKPEVYLMGQ-----SESVFTKDTQTGMS	452
QY	534	GFGDMNDSTLAVAKILVEYADSNP-----QLTDLFEIPNNKKYQSLIGTQWPEDL	587
Db	453	G-----QTPQVE-----TEDTKPEGVLMGQSESVFTKDTQTGMSGQTASQVETEDT	501
QY	588	VDI--IRMEDKKEVIRPYTHNLTKRTVYGLAGDRDKDHFELKLNKNOELLSTQVTKDKT	646
Db	502	KEPGLVLMGQSESVFT-----KDTQTGMSGQTP---QVETEDTKPEVLMGQSE--	550
QY	647	NLEF-KDGKATINKHESLSLTQGLPGYSYLVKETESEGIKVKVNSQEVANATVSKTGI	705
Db	551	SVEETKDTQTGMS--GFSESVTIVEDTTPRLVYHFNPNNEKVAENNEKPT-----	598
QY	706	TSDETLAFENKKEPVV--TGVDKQINGLYALIVYA	739
Db	599	-----KNITPILPATGDIENVLAFLGILILS	624
RESULT	5		
Q47942			
AC	Q47942	PRELIMINARY:	PRT: 580 AA.
DT	01-NOV-1996	(Tremblrel. 01, Created)	
DT	01-NOV-1996	(Tremblrel. 01, Last sequence update)	
DT	01-MAY-2000	(Tremblrel. 13, Last annotation update)	
DE	FIBRONECTIN BINDING PROTEIN F.		
GN	GFb.		
OS	Streptococcus sp.		
OC	Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;		
OC	Streptococcus.		
OX	NCBI_TaxID=1306;		
RN	[1]		
RP	SEQUENCE FROM N.A.		
RC	STRAIN=1750.		
RX	MEDLINE=96239026; Pubmed=8675316;		
RA	Kline J.B., Xu S., Bisno A.L., Collins C.M.;		
RT	"Identification of a fibronectin-binding protein (Gfba) in pathogenesis		
RT	group G streptococci."		
RL	Infect. Immun. 64:2122-2129(1996).		
DR	EMBL: U11115; AAB06623.1; -		
DR	INTERPRO: IPR001899; -		
DR	PROSITE: PS00343; GRAM_POS_ANCHORING; UNKNOWN.1.		
DR	SEQUENCE 580 AA; 64975 MW; 69994BFA15C73A70 CRC64;		

Query Match	13.3%;	Score 523;	DB 2;	Length 580;
Best Local Similarity	24.8%;	Pred. No. 3.9e-23;		
Matches 180;	Conservative 106;	Mismatches 250;	Indels 190;	Gaps 23;

[illegible]

RA Katerov V., Andreev A., Schalen C., Totolian A.A.;
RT "Protein F, a fibronectin-binding protein of *Streptococcus pyogenes*,
RT also binds human fibrinogen: Isolation of the protein and mapping of
RT the binding region.";

RL Microbiology 144:119-126(1998).

DR EMBL: AF009914; AAC38161.1; -.

FT NON_TER

FT NON_TER

SO SEQUENCE

106 AA; 12329 MW; 58FDF55C1A9138E2 CRC64;

Query Match

Best Local Similarity 49.1%; Score 272.5; DB 2; Length 106;
Matches 53; Conservative 17; Mismatches 31; Indels 7; Gaps 2;

QY 51 FGVY-----ESSTPNAINPDSSSEYRWYGYESYVRGHPYKQFRVAHDLVNLGSGRSYQ 105

DB 1 FGOVAVAADDEKTYPNFKSPD--PDYPMYGYDAYGKGYPGIDISKYHDLVNLGSGVYQ 58

QY 106 VYCFNLKKAFFPLGSDSSVKRWYKKHKGISTKFEEDYAMSPRITGDELNQ 153

DB 59 VYCFNLKKAFFPLGSDSSVKRWYKKHKGISTKFEEDYAMSPRITGDELNQ 106

RESULT 7

033714 PRELIMINARY; PRT; 104 AA.

AC 033714; PRELIMINARY; PRT; 104 AA.

DT 01-JAN-1998 (TREMBLrel. 05, Created)

DT 01-JAN-1998 (TREMBLrel. 05, Last sequence update)

DT 01-NOV-1998 (TREMBLrel. 08, Last annotation update)

DE FIBRONECTIN BINDING PROTEIN F (FRAGMENT).

OS Streptococcus pyogenes.

OC Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;

OC Streptococcus.

NCBI_TaxID=1314;

RN [1]

RP SEQUENCE FROM N.A.

RC STRAIN-M4 STRAIN 281C;

RA MEDLINE=98129085; PubMed=9467904;

RX Katerov V., Andreev A., Schalen C., Totolian A.A.;

RT "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,

also binds human fibrinogen: Isolation of the protein and mapping of

the binding region.";

RL Microbiology 144:119-126(1998).

DR EMBL: AF009913; AAC38160.1; -.

FT NON_TER

FT NON_TER

SO SEQUENCE

104 AA; 12055 MW; CF6C1A9E05A72850 CRC64;

Query Match

Best Local Similarity 48.1%; Score 262.5; DB 2; Length 104;
Matches 51; Conservative 18; Mismatches 30; Indels 7; Gaps 2;

QY 51 FGVY-----ESSTPNAINPDSSSEYRWYGYESYVRGHPYKQFRVAHDLVNLGSGRSYQ 105

DB 1 FGOVAVAADDEKTYPNFKSPD--PDYPMYGYDAYGKGYPGIDISKYHDLVNLGSGVYQ 58

QY 106 VYCFNLKKAFFPLGSDSSVKRWYKKHKGISTKFEEDYAMSPRITGDEL 151

DB 59 VYCFNLKKAFFPLGSDSSVKRWYKKHKGISTKFEEDYAMSPRITGDEL 104

RESULT 8

033711 PRELIMINARY; PRT; 108 AA.

AC 033711; PRELIMINARY; PRT; 108 AA.

DT 01-JAN-1998 (TREMBLrel. 05, Created)

DT 01-JAN-1998 (TREMBLrel. 05, Last sequence update)

DT 01-NOV-1998 (TREMBLrel. 08, Last annotation update)

DE FIBRONECTIN BINDING PROTEIN F (FRAGMENT).

OS Streptococcus pyogenes.

OC Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;

OC Streptococcus.

NCBI_TaxID=1314;

RN [1]

RP SEQUENCE FROM N.A.

RC STRAIN-M4 STRAIN M4/118;

RX MEDLINE=98129085; PubMed=9467904;

RA Katerov V., Andreev A., Schalen C., Totolian A.A.;

RT "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,

also binds human fibrinogen: Isolation of the protein and mapping of

the binding region.";

RL Microbiology 144:119-126(1998).

DR EMBL: AF009910; AAC38157.1; -.

FT NON_TER

FT NON_TER

SO SEQUENCE

108 AA; 12845 MW; DA6820430E41FAE8 CRC64;

Query Match

Best Local Similarity 44.3%; Score 241.5; DB 2; Length 108;
Matches 51; Conservative 17; Mismatches 34; Indels 13; Gaps 3;

QY 51 FGVY-----ESSTPNAINPDSSSEYRWYGYESYVRGHPYKQFRVAHDLVNLGSGRSYQ 105

DB 1 FGOVAVAADDEKTYPNFKSPD--PDYPMYGYDAYGKGYPGIDISKYHDLVNLGSGVYQ 52

QY 106 VYCFNLKKAFFPLGSDSSVKRWYKKHKGISTKFEEDYAMSPRITGDELNQ 160

DB 53 VYCFNLKKAFFPLGSDSSVKRWYKKHKGISTKFEEDYAMSPRITGDELNQ 107

RESULT 9

033721 PRELIMINARY; PRT; 116 AA.

AC 033721; PRELIMINARY; PRT; 116 AA.

DT 01-JAN-1998 (TREMBLrel. 05, Created)

DT 01-JAN-1998 (TREMBLrel. 05, Last sequence update)

DT 01-NOV-1998 (TREMBLrel. 08, Last annotation update)

DE FIBRONECTIN BINDING PROTEIN F (FRAGMENT).

OS Streptococcus pyogenes.

OC Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;

OC Streptococcus.

NCBI_TaxID=1314;

RN [1]

RP SEQUENCE FROM N.A.

RC STRAIN-M18 STRAIN SS-36;

RX MEDLINE=98129085; PubMed=9467904;

RA Katerov V., Andreev A., Schalen C., Totolian A.A.;

RT "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,

also binds human fibrinogen: Isolation of the protein and mapping of

the binding region.";

RL Microbiology 144:119-126(1998).

DR EMBL: AF009920; AAC38167.1; -.

FT NON_TER

FT NON_TER

SO SEQUENCE

116 AA; 13538 MW; E6AE1A4F68428673 CRC64;

Query Match

Best Local Similarity 40.7%; Score 222.5; DB 2; Length 116;
Matches 48; Conservative 15; Mismatches 42; Indels 13; Gaps 3;

QY 51 FGVY-----ESSTPNAINPDSSSEYRWYGYESYVRGHPYKQFRVAHDLVNLGSGRSYQ 105

DB 1 FGOVAVAADDEKTYPNFKSPD--PDYPMYGYDAYGKGYPGIDISKYHDLVNLGSGVYQ 52

QY 106 VYCFNLKKAFFPLGSDSSVKRWYKKHKGISTKFEEDYAMSPRITGDELNQ 163

DB 53 VYCFNLKKAFFPLGSDSSVKRWYKKHKGISTKFEEDYAMSPRITGDELNQ 110

RESULT 10

033718 PRELIMINARY; PRT; 92 AA.

AC 033718; PRELIMINARY; PRT; 92 AA.

DT 01-JAN-1998 (TREMBLrel. 05, Created)

DT 01-JAN-1998 (TREMBLrel. 05, Last sequence update)

DR 01-NOV-1998 (TREMBLrel. 08, Last annotation update)
DE FIBRONECTIN BINDING PROTEIN F (FRAGMENT).
OS Streptococcus pyogenes.
OC Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;
OC Streptococcus.
OX NCBI_TaxID=1314;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-M15 STRAIN 58/50;
RX MEDLINE=98129085; PubMed=9467904;
RA Katerov V., Andreev A., Schalen C., Totolian A.A.;
RT "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,
also binds human fibrinogen: isolation of the protein and mapping of
the binding region.";
RL Microbiology 144:119-126(1998).
DR EMBL; AF009917; AAC38164.1; -.
FT NON_TER 1 1
FT NON_TER 92 92
SQ SEQUENCE 92 AA; 10772 MW; 5C213D9CE6669B82 CRC64;

Query Match 5.4%; Score 211.5; DB 2; Length 92;
Best Local Similarity 45.5%; Pred. No. 6.5e-06;
Matches 46; Conservative 15; Mismatches 25; Indels 15; Gaps 4;

OY 51 FGLV-----ESSTPNAINDSSSEYRMWYGESYVRGHPYKQFRVA-HDLRVNLEGSRSY 104
DB 1 FGVAVAADEKTVPNRIN--SNPEFMYGYDA-----YKGEAYHDLKVNLSKSEY 51
OY 105 VYCFNLKKAFFPLGSDSVKWKYKHDGISTKFEEDYAMSPR 145
DB 52 QVYCFNLKRSFPRRTHSITNPFYKKIVGSGSVKSYAENPR 92

RESULT 11

033712 PRELIMINARY; PRT; 103 AA.
AC 033712;
DT 01-JAN-1998 (TREMBLrel. 05, Created)
DT 01-JAN-1998 (TREMBLrel. 05, Last sequence update)
DT 01-NOV-1998 (TREMBLrel. 08, Last annotation update)
DE FIBRONECTIN BINDING PROTEIN F (FRAGMENT).
OS Streptococcus pyogenes.
OC Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;
OC Streptococcus.
OX NCBI_TaxID=1314;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-M12 STRAIN 100085;
RX MEDLINE=98129085; PubMed=9467904;
RA Katerov V., Andreev A., Schalen C., Totolian A.A.;
RT "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,
also binds human fibrinogen: isolation of the protein and mapping of
the binding region.";
RL Microbiology 144:119-126(1998).
DR EMBL; AF009911; AAC38158.1; -.
FT NON_TER 1 1
FT NON_TER 103 103
SQ SEQUENCE 103 AA; 12011 MW; F056E8AC291A0477 CRC64;

Query Match 5.4%; Score 211.5; DB 2; Length 103;
Best Local Similarity 42.6%; Pred. No. 7.8e-06;
Matches 46; Conservative 17; Mismatches 32; Indels 13; Gaps 4;

OY 51 FGLV-----ESSTPNAINDSSSEYRMWYGESYVRGHPYKQFRVAHDLRVNLEGSRSY 105
DB 1 FGVAVAADEKTVPNRSPD--PDYPMYGSYX-RG-----IFARHNLKVNLSKSEY 52
OY 106 VYCFNLKKAFFPLGSDSVKWKYKHDGISTKFEEDYAMSPRITDELNO 153
DB 53 AVCFNLTJKFPRPTYSTNNFYKKIDGSGSAFESYANPRVLDENLDR 100

RESULT 12
ID 033719 PRELIMINARY; PRT; 102 AA.
AC 033719;
DT 01-JAN-1998 (TREMBLrel. 05, Created)
DT 01-JAN-1998 (TREMBLrel. 05, Last sequence update)
DT 01-NOV-1998 (TREMBLrel. 08, Last annotation update)
DE FIBRONECTIN BINDING PROTEIN F (FRAGMENT).
OS Streptococcus pyogenes.
OC Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;
OC Streptococcus.
OX NCBI_TaxID=1314;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-M18 STRAIN M18/104;
RX MEDLINE=98129085; PubMed=9467904;
RA Katerov V., Andreev A., Schalen C., Totolian A.A.;
RT "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,
also binds human fibrinogen: isolation of the protein and mapping of
the binding region.";
RL Microbiology 144:119-126(1998).
DR EMBL; AF009918; AAC38165.1; -.
FT NON_TER 1 1
FT NON_TER 102 102
SQ SEQUENCE 102 AA; 11795 MW; 66CCF38D847255FC CRC64;

Query Match 5.3%; Score 210.5; DB 2; Length 102;
Best Local Similarity 42.7%; Pred. No. 8.8e-06;
Matches 47; Conservative 16; Mismatches 34; Indels 13; Gaps 4;

OY 51 FGLV-----ESSTPNAINDSSSEYRMWYGESYVRGHPYKQFRVAHDLRVNLEGSRSY 105
DB 1 FGVAVAADEKTVPNRSP--NPEFMYGYDAY-RG-----SFLRHYDLNVNLEGSTSY 52
OY 106 VYCFNLKKAFFPLGSDSVKWKYKHDGISTKFEEDYAMSPRITDELNO 155
DB 53 VYCFNLVROEPSKVNGLRKRWKRYVDGNAVFKKYANPRVIDGLERNI 102

RESULT 13

033716 PRELIMINARY; PRT; 102 AA.
AC 033716;
DT 01-JAN-1998 (TREMBLrel. 05, Created)
DT 01-JAN-1998 (TREMBLrel. 05, Last sequence update)
DT 01-NOV-1998 (TREMBLrel. 08, Last annotation update)
DE FIBRONECTIN BINDING PROTEIN F (FRAGMENT).
OS Streptococcus pyogenes.
OC Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;
OC Streptococcus.
OX NCBI_TaxID=1314;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-M12 STRAIN 73195/2110;
RX MEDLINE=98129085; PubMed=9467904;
RA Katerov V., Andreev A., Schalen C., Totolian A.A.;
RT "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,
also binds human fibrinogen: isolation of the protein and mapping of
the binding region.";
RL Microbiology 144:119-126(1998).
DR EMBL; AF009915; AAC38162.1; -.
FT NON_TER 1 1
FT NON_TER 102 102
SQ SEQUENCE 102 AA; 11932 MW; F6F935A2089DPCFD CRC64;

Query Match 5.3%; Score 209.5; DB 2; Length 102;
Best Local Similarity 42.6%; Pred. No. 1e-05;
Matches 46; Conservative 17; Mismatches 32; Indels 13; Gaps 4;

OY 51 FGLV-----ESSTPNAINDSSSEYRMWYGESYVRGHPYKQFRVAHDLRVNLEGSRSY 105

```

Db      1 FGOVAYAADEKTVNPFNSPD--PDYPMWGYYSY-RG-----IFARYNLKLKNGSKKEYQ 52
QY      106 VYCFNLKKAAPPLGSDSSVKWKYKKHKGISTKFEDYAMSPRTGDELNQ 153
Db      53 AYCENLTKRYPPTYSTNNFYKKIDGSGSAFKSYTANPRVLDENLDK 100

RESULT 14
ID      033713      PRELIMINARY;      PRT;      93 AA.
AC      033713;
DT      01-JAN-1998 (TREMblrel. 05, Created)
DT      01-JAN-1998 (TREMblrel. 05, Last sequence update)
DT      01-NOV-1998 (TREMblrel. 08, Last annotation update)
DE      FIBRONECTIN BINDING PROTEIN F (FRAGMENT).
OS      Streptococcus pyogenes.
OC      Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;
OC      Streptococcus.
OX      NCBI_TaxID=1314;
RN      [1]
RP      SEQUENCE FROM N.A.
RC      STRAIN=T27 STRAIN SF40;
RX      MEDLINE=98129085; PubMed=9467904;
RA      Katerov V., Andreev A., Schalen C., Totolian A.A.;
RT      "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,
RT      also binds human fibrinogen: Isolation of the protein and mapping of
RT      the binding region."
RL      Microbiology 144:119-126(1998).
DR      EMBL; AF009912; AAC38159.1; -.
FT      NON_TER      1
FT      NON_TER      93
SQ      SEQUENCE      93 AA; 10742 MW; C51A35C75AB85A8 CRC64;

Query Match
Best Local Similarity 5.2%; Score 205.5; DB 2; Length 93;
Matches 45; Conservative 16; Mismatches 27; Indels 13; Gaps 4;

QY      51 FGLV-----ESSTPNAINPDSSSEYRMWGYESYRGHPYRKQFRVAHDLRYNLEGSRSYQ 105
Db      1 FGOVAYAADEKTVNPFNSPD--PDYPMWGYYSY-RG-----IFARYNLKLKNGSKKEYQ 52

QY      106 VYCFNLKKAAPPLGSDSSVKWKYKKHKGISTKFEDYAMSPRI 146
Db      53 AYCENLTKRYPPTYSTNNFYKKIDGSGSAFKSYANPRV 93

RESULT 15
ID      033720      PRELIMINARY;      PRT;      102 AA.
AC      033720;
DT      01-JAN-1998 (TREMblrel. 05, Created)
DT      01-JAN-1998 (TREMblrel. 05, Last sequence update)
DT      01-NOV-1998 (TREMblrel. 08, Last annotation update)
DE      FIBRONECTIN BINDING PROTEIN F (FRAGMENT).
OS      Streptococcus pyogenes.
OC      Bacteria; Firmicutes; Bacillus/Clostridium group; Streptococcaceae;
OC      Streptococcus.
OX      NCBI_TaxID=1314;
RN      [1]
RP      SEQUENCE FROM N.A.
RC      STRAIN=M48 STRAINB4C3/48/1;
RX      MEDLINE=98129085; PubMed=9467904;
RA      Katerov V., Andreev A., Schalen C., Totolian A.A.;
RT      "Protein F, a fibronectin-binding protein of Streptococcus pyogenes,
RT      also binds human fibrinogen: Isolation of the protein and mapping of
RT      the binding region."
RL      Microbiology 144:119-126(1998).
DR      EMBL; AF009919; AAC38166.1; -.
FT      NON_TER      1
FT      NON_TER      102
SQ      SEQUENCE      102 AA; 11914 MW; AECDF38D82AE3EC7 CRC64;

```

```

Query Match
Best Local Similarity 5.2%; Score 204.5; DB 2; Length 102;
Matches 46; Conservative 16; Mismatches 35; Indels 13; Gaps 4;

QY      51 FGLV-----ESSTPNAINPDSSSEYRMWGYESYRGHPYRKQFRVAHDLRYNLEGSRSYQ 105
Db      1 FGOVAYAADEKTVNPFNSPD--PDYPMWGYYSY-RG-----WFLRYHDLNRYNLEGSASAYQ 52

QY      106 VYCFNLKKAAPPLGSDSSVKWKYKKHKGISTKFEDYAMSPRTGDELNQKL 155
Db      53 VYCFNLVROEPSKYNGLRKNMFKKVDGHNAYFKKYVANPRVLDGDLERNI 102

Search completed: June 7, 2001, 00:19:09
Job time: 122 sec

```

